

QUARTERLY SITE INSPECTION REPORT

BAILEY SUPERFUND SITE ORANGE COUNTY, TEXAS

August 28, 1998

PREPARED BY: CECOS INTERNATIONAL, INC.



125227

TABLE OF CONTENTS

SECTION 1 1-1

1.0 Introduction..... 1-1

Section 2 2-1

2.0 Inspection Summary 2-1

2.1 Grounds Inspection 2-1

2.2 Dike Breaches and Drainage Pipes Inspection 2-2

2.3 Fence and Sign Inspection 2-2

2.4 Site access Bridge Inspection 2-2

2.5 Road Inspection 2-2

2.6 Other Observations..... 2-2

SECTION 3 3-1

3.0 Summary of Problem Areas/Recommended Actions..... 3-2

LIST OF APPENDICES

| | |
|--|-----|
| Appendix A, Inspection Check List..... | A-1 |
| Appendix B, Site Map | B-1 |
| Appendix C, Photographs..... | C-1 |

List of Tables

| | |
|--|-----|
| Table 3-1: Observations and Recommendations..... | 3-2 |
|--|-----|

SECTION 1

1.0 INTRODUCTION

Todd Broussard of CECOS International, Inc. conducted the fourth quarterly inspection of the Bailey Site on August 28, 1998. The inspection was conducted in accordance with the Final Inspection, Maintenance, and Monitoring Plan (prepared by Parsons ES and GeoSyntec, September 1997). The following BSSC technical committee members were present for the inspection: Chuck Orwig, Lou Levi, and Fred Manhart. Mark Murphy (Parsons ES) was also present during the inspection.

An inspection checklist was developed to aid in the inspection and is included in Appendix A. The checklist was completed as the entire site was walked and observations were made. Any areas of concern that were observed during the inspection were noted and located on a site map which is included in Appendix B. Photographs were taken during the inspection and are presented in Appendix C. A summary of the inspection is presented in Section 2.

Section 2

2.0 Inspection Summary

Todd Broussard of Cecos International, Inc., Mark Murphy of Parsons ES, and Members of the Bailey Site Settlers Committee (BSSC) conducted a quarterly visual inspection of the site on August 28, 1998.

2.1 Grounds Inspection

The North and East Dike areas were inspected by traversing the surface area of each dike and thoroughly looking for signs of problems that would affect the integrity of the geosynthetic lightweight cap system. The vegetative cover was generally found to be in good condition due to significant daily rainfall events occurring in the region. A permanent rain gauge was placed near the eastern site gate on August 10, 1998 to determine a more accurate rainfall amount. At the time of the inspection, the site had received 4.60 inches of rainfall within the seventeen-day period. The areas of the geosynthetic lightweight cap were inspected for signs of erosion. One minor area of channeling erosion was observed at the west end of the North Dike. Former repaired areas of channeling erosion appear to be holding up well.

The North and East Dike areas were carefully observed for signs of differential settlement. There were signs of differential settlement in small, localized areas. Five areas of settlement averaging 400 square feet of surface area were observed on the North Dike. Three areas were located on the East Dike; the largest measured 3,000 square feet of surface area. All areas of settlement were estimated at two to four inches. Although no ponded water was present during the inspection, the areas of settlement were saturated.

The rip-rap area located outside of the geosynthetic composite cap system limits on the western end of the North Dike, adjacent to the Pond A bank, which has previously been identified as a possible area of differential settlement has shown some change since the last inspection on May 29, 1998.

The gas vents located on the North and East Dikes were inspected and all were found to be in good condition.

2.2 Dike Breaches and Drainage Pipes Inspection

The two breaches in the North Marsh perimeter dike were inspected and found to be in good condition and allowing free tidal flow. A moderate outgoing tide occurred during the inspection period. The drainage pipes in the former laydown area and at the eastern end of the East Dike were found to be in good condition with no obstructions present.

2.3 Fence and Sign Inspection

The length of the fence was walked and observed to be in good condition. The gates and locks were inspected and found to be in good working order. Two signs were observed unattached to the applicable poles.

2.4 Site Access Bridge Inspection

The access bridge to the site was observed to be in good condition. The bridge decking, handrails, approaches, and steel structure were visually inspected.

2.5 Road Inspection

The access roads on the North and East Dikes were inspected for signs of rutting, potholes, erosion, and accumulation of silt. The roads were found to be in good condition. Some minor channeling erosion had caused deposition of a small amount of shell on the western end of the North Dike area.

2.6 Other Observations

The previous quarterly inspection conducted on May 29, 1998 noted desiccation cracking of the topsoil layer due to the lack of rainfall in the area. These areas were mainly concentrated on the southern end of the East Dike and the central area of the North Dike. During the previous quarter, drought conditions ended and desiccation cracks have filled in. Vegetation is no longer in a stressed condition, but some limited areas could benefit from re-seeding.

Section 3

3.0 Summary of Problem Areas and Recommended Actions

Areas of concern observed during the August 1998 Quarterly Site Inspection included small areas of apparent differential settlement on the North and East Dike, settlement of rip-rap material on the North Dike, unattached signs, and minor erosion channeling on the western end of the North Dike.

Table 3.1 on the following page describes the areas of concern observed during the site inspection and recommendations for corrective action, which will be scheduled by Cecos for implementation.

TABLE 3.1
OBSERVATIONS AND RECOMMENDATIONS

Observation No. 1

The areas of differential settlement on the North and East Dike protective soil layer within the limits of the lightweight geosynthetic cap system.

Recommendation No.1

Place six inches of topsoil in areas where differential settlement was noted to occur. Reseed areas with bermuda grass or a bermuda/rye mixture, depending on growing season recommendations. Add fertilizer at the rates shown on the attached soil test report from the Texas Agricultural Extension Service.

Observation No. 2

The area of differential settlement in the rip-rap material located on the south-central side of the North dike.

Recommendation No. 2

Redistribute rip-rap material with a rubber tire backhoe to establish a consistent slope.

Observation No. 3

Missing signs on the North and East Dike areas.

Recommendation No. 3

Attach existing signs to the applicable poles.

Observation No. 4

Road shell at west end of North Dike channeled due to rainfall runoff.

Recommendation No. 4

Eliminate erosion potential by spreading shell out with tractor boxblade and placement of fill in areas of differential settlement.

Observation No. 5

The East Dike was partially mowed prior to the inspection due to recent heavy rainfall events.

Recommendation No. 5

Complete the mowing event as weather permits.

Observation No. 6

Areas where vegetation needs to be stimulated.

Recommendation No. 6

Add fertilizer and seed to these areas when placing topsoil to correct differential settlement. (See Recommendation No. 1 above)

APPENDIX A

QUARTERLY SITE INSPECTION CHECKLIST

BAILEY SITE INSPECTION CHECK LIST

Inspection Date: August 28, 1998
Inspection Time: 10:00 am - 11:30 am
Name of Inspector: Todd Broussard
Weather Conditions: Clear, 92°F, Winds W-10

Ground Inspections

Condition of Vegetation:

Note: Mowing Event was not complete at time of inspection.

Grass Height

Varies

Color

Green, Tan

Fullness

90%

Areas of Concern:

☒ Yes ☐ No
(If Yes Detail on Map)

Signs of Erosion:

Yes

☐ No

(If yes detail location on map and note average depth and width)

Exposed Geosynthetics:

Yes

☐ No

(If yes provide location on map and note if its the geocomposite drainage layer, 60 mil HDPE liner, or geosynthetic clay liner)

Signs of Differential Settlement:

Note: South Side of North Low Spots on capped areas

☒ Yes

☐ No

Dike (Rip-Rap) See map.

(If yes, provide location on map noting estimated depth and width)

Ponding Greater than 2" in Depth:

Yes

☐ No

(If yes, provide location on map noting depth)

Evidence of Prolonged Ponding

☒ Yes

☐ No

Estimated date of last rain event:

August 21, 1998

Gas Vents:

Condition of Barrier:

Good

Condition of Piping:

Good

Screens Intact:

☒ Yes

☐ No

(If no to any, provide details on map)

Riser Pipe Plumb:

☒ Yes

☐ No

BAILEY SITE INSPECTION CHECK LIST

Condition of Dike Breaches and Drainage Pipes

Verify that each allows free drainage:

| | | |
|---|--------------------------------------|--------------------------|
| Pond A culvert at South end of East Dike: | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Site Entrance Area (Non-capped Area): | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Perimeter Dike Breach in Pond A: | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Perimeter Dike Breach in North Dike: | <input checked="" type="radio"/> Yes | <input type="radio"/> No |

If the answer was No to any of the above, describe the obstruction:

Fence and Sign Inspection

Chain Link Fencing

| | | |
|------------------------------|-----|-------------------------------------|
| Signs of unauthorized entry: | Yes | <input checked="" type="radio"/> No |
| Fence Damage: | Yes | <input checked="" type="radio"/> No |
| Corrosion: | Yes | <input checked="" type="radio"/> No |
| Barb Wire Damage: | Yes | <input checked="" type="radio"/> No |

| | | |
|----------------------------------|--------------------------------------|--------------------------|
| Gates & Locks in good condition: | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
|----------------------------------|--------------------------------------|--------------------------|

Overhang Extensions

| | | |
|------------------------------|-----|-------------------------------------|
| Signs of unauthorized entry: | Yes | <input checked="" type="radio"/> No |
| Signs of damage: | Yes | <input checked="" type="radio"/> No |

Signs

| | | |
|---------------------|--------------------------------------|-------------------------------------|
| Verified all signs: | Yes | <input checked="" type="radio"/> No |
| Signs on all gates: | <input checked="" type="radio"/> Yes | <input type="radio"/> No |

Provide location of any damage on the map. Describe below any damage to the fence or signs:

- Sign off of pole on southwest end of North Dike.
- Sign off of pole on west side of East Dike.

BAILEY SITE INSPECTION CHECK LIST

Site Access Bridge

Are the following in good condition:

| | | |
|------------------------|--------------------------------------|--------------------------|
| Wood Decking | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Hand Rails | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Approaches | <input checked="" type="radio"/> Yes | <input type="radio"/> No |
| Bridge Steel Structure | <input checked="" type="radio"/> Yes | <input type="radio"/> No |

If no, describe the observed condition:

Road Inspection

| | | | |
|----------------------|--------------------------------------|-------------------------------------|---|
| Rutting | <input type="radio"/> Yes | <input checked="" type="radio"/> No | (If yes to any, provide location on map) |
| Potholes | <input type="radio"/> Yes | <input checked="" type="radio"/> No | |
| Erosion Channeling | <input checked="" type="radio"/> Yes | <input type="radio"/> No | - Southwestern end of North Dike (see map). |
| Accumulation of Silt | <input type="radio"/> Yes | <input checked="" type="radio"/> No | |

Other General Site Observations:

General site conditions look good. Approximately three quarters of mowing event is complete. Site is receiving daily rainfall events and mowing would risk damage to the protective layer. Once the site is dry, the mowing event will be completed.

BAILEY SITE INSPECTION CHECK LIST

Summary of Problem Areas Identified

- 1) Low Areas needs 6" of topsoil fill on North Dike. 6 areas on North Dike.
- 2) Thin grass on western end of North Dike.
- 3) Sign off pole on south end of North Dike.
- 4) Differential settlement of rip-rap material on south side of North Dike.
- 5) Road shell has runoff channeling - west end of North Dike.
- 6) Three low spots need 6" fill (topsoil) on East Dike.
- 7) Sign off pole on west side of East Dike.
- 8) Sparse vegetation on south end of East Dike. Possibly seed and fertilize (Very sandy media).

Note - Topsoil cracks noted in the 3rd Quarter Inspection seemed to have silted in with the daily rainfall events. Some of the minor cracks remain but do not pose a problem to the integrity of the cap or the environment.

Jodee Brown

Inspector's Signature

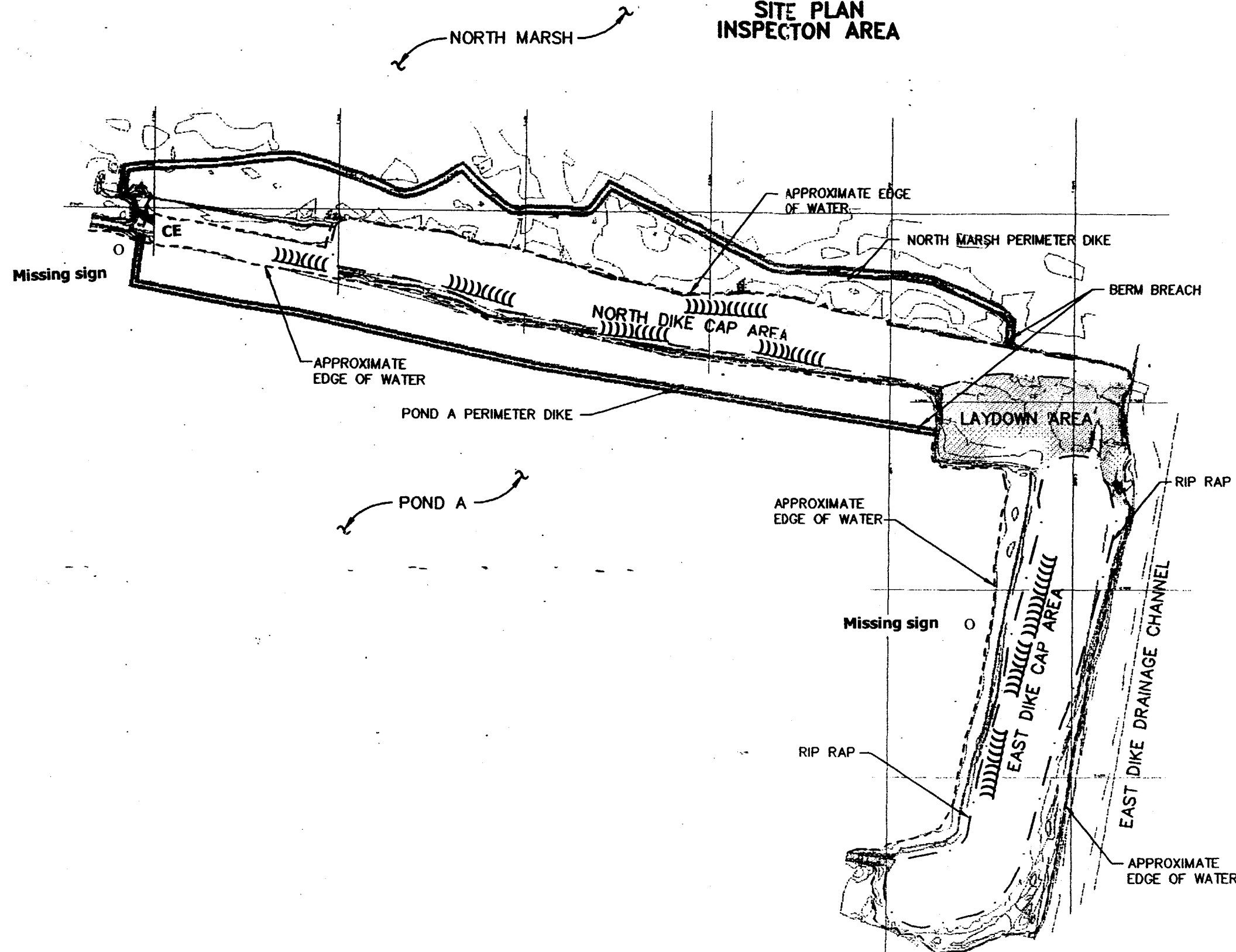
8-28-98

Date

APPENDIX B

SITE MAPS

SITE PLAN INSPECTION AREA



NOTES:

1. DRAWING BASED ON PREVIOUS SITE TOPOGRAPHIC INFORMATION AND DESIGN DRAWINGS. DRAWING IS NOT BASED ON FINAL AS-BUILT DATA.
2. LOCATION OF EDGE OF WATER SHOWN IS THE LOCATION AT THE TIME OF SURVEY. WATER LEVELS SUBJECT TO TIDAL VARIATIONS. AVERAGE TIDE ELEVATIONS ARE: LOW TIDE - -2.0 FEET (MSL) AND HIGH TIDE +1.0 FEET (MSL). TIDE ELEVATIONS ARE SUBJECT TO VARIATION DEPENDING ON SEASON AND LOCAL WEATHER CONDITIONS.
3. RIPRAP LOCATED ON ALL SLOPES.
4. INSPECTION AREA TO INCLUDE, AS A MINIMUM,

- NORTH DIKE CAP AREA
- EAST DIKE CAP AREA
- ALL AREAS OF RIP RAP
- VISUAL OBSERVATION OF PERIMETER DIKES
- ACCESS BRIDGE
- SITE FENCING (FIGURE 2.2)

LEGEND - GENERAL

- EXISTING CONTOUR (FEET)
- ANCHOR TRENCH
- APPROXIMATE LIMIT OF GRAVEL SURFACING
- Channel Erosion = CE
- Missing sign = O
- Area of possible Differential Settlement

0 300
SCALE IN FEET



GeoSYNTEC CONSULTANTS

ATLANTA, GA

| | |
|------------------------|-------------------|
| PROJECT NO. GE3913-620 | FIGURE NO. 2.1 |
| DOCUMENT NO. | FILE NO. 3913F004 |

APPENDIX C

PHOTOGRAPHS



Access bridge in good condition- looking towards site





Site shell road in good condition- looking south



Site shell road in good condition- looking north



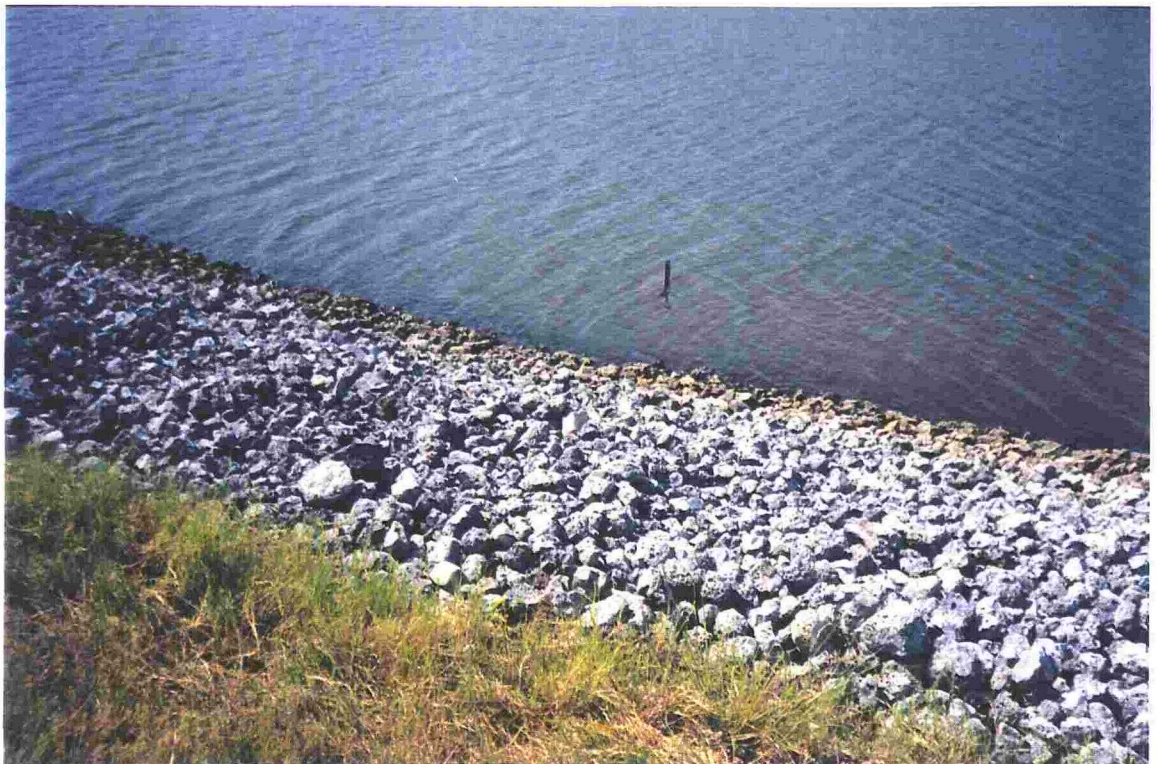
North Dike recently mowed with all cap limits signs in place



Area of differential settlement on south side of East Dike



Rip-Rap area where differential settlement is occurring-
South side of North Dike





Areas of differential settlement- East Dike





Areas of differential settlement- North Dike

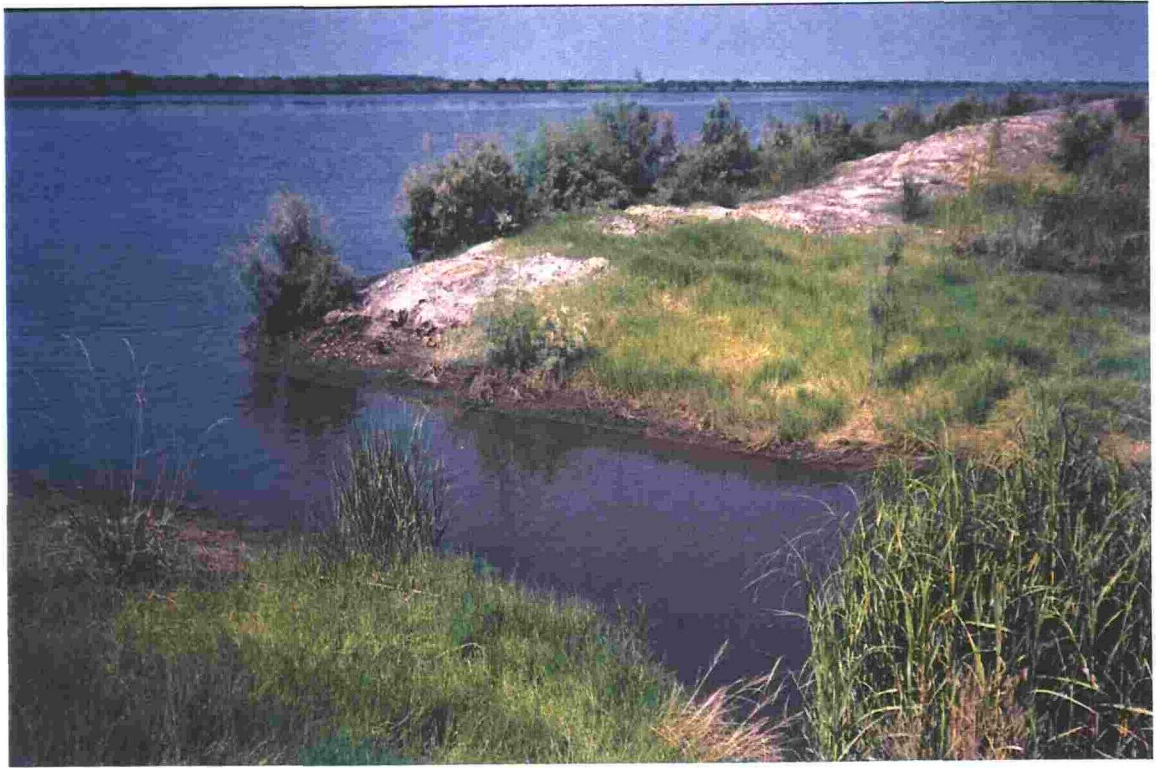




Sparse vegetation on south end of East Dike



Area of erosion channeling- West end of North Dike



The North Dike Breaches in good condition and allowing free tidal flow





The East Dike Breaches in good condition and allowing free tidal flow

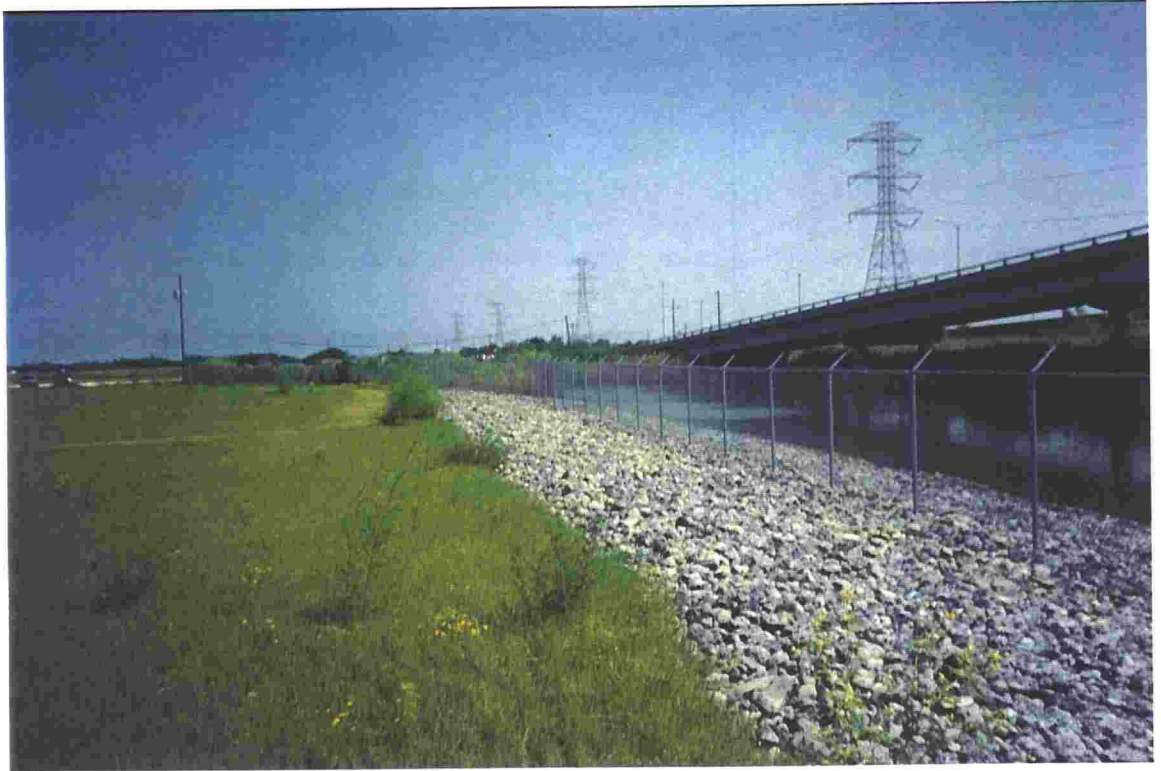




West site gate in good condition- all signs and locks in place



Drainage ditch from former laydown yard remains unobstructed



Perimeter security fence remains in good condition



PROFESSIONAL ENGINEER CERTIFICATION

I , William E. Schlafer, a registered professional engineer in the State of Texas (Registration No. 66124), certify that the quarterly site inspection report dated August 28, 1998 for the Bailey Superfund Site, Orange County, Texas was prepared to satisfy the Consent Decree requirements for this site. The information contained in the report is accurate to the best of my knowledge.

William E. Schlafer
William E. Schlafer, P.E.

9/25/98
Date

